

IN THE CLAIMS

1. (Currently amended) A bulk acoustic wave (BAW) resonator comprising at least a bottom electrode (3), a piezoelectric layer (2) and a top electrode (1), a basic-substrate (5) and means for absorbing or scattering spurious modes, ~~characterized in that~~wherein the means for absorbing or scattering spurious modes ~~are selected from the group of~~comprises at least one of the following: a roughened rear side of the basic substrate (5); an absorbing layer (6) disposed on a rear side of substrate (5) disposed absorbing layer (6) and/or; and an absorbing layer (7) disposed on a front side of substrate (5) disposed absorbing layer (7).
2. (Currently amended) A BAW resonator as claimed in claim 1, ~~characterized in that~~wherein the rear side of the basic substrate (5) is roughened by means of etching or blasting.
3. (Currently amended) A bulk resonator as claimed in claim 1, ~~characterized in that~~wherein the rear side absorbing layer (6) and/or the front side absorbing layer (7) are/is selected from the group of glue such as epoxy glue, elasticoviscous materials such as polyimide, rubber, silicon rubber, plastic materials, porous media like aerogel or xerogel or porous thin films.
4. (Currently amended) A bulk acoustic wave filter comprising at least two bulk acoustic wave resonators which comprise means for suppression of pass-band ripple in a ladder or in a lattice type configuration ~~characterized in that~~wherein the resonator's means for suppression of pass-band ripple comprises at least one of the following: a roughened rear side of the basic substrate (5); an absorbing layer (6) disposed on a rear side of substrate (5); and an absorbing layer (7) disposed on a front side of substrate (5)are alternatively a roughened rear side of the basic-substrate (5), an absorbing-layer (6) disposed on the rear side of the substrate (5) and/or an absorbing layer (7) disposed on the front side of the substrate (5) and below a Bragg reflector (4).

5. (Currently amended) A bulk resonator as defined in one of the preceding claims, ~~characterized in that~~wherein the top electrode is made of a metal material such as aluminum (Al) and/or the piezoelectric layer is made of aluminum nitride (AlN), zinc oxide (ZnO) or lead zirconate titanate (PZT) and/or the bottom electrode is made of a metal material such as Molybdenum (Mo), Platinum (Pt) or Tungsten (W).

6. (Currently amended) Method for manufacturing a bulk acoustic wave resonator comprising the steps of providing a holder in the form of a silicon chip or dice, disposing ~~the a~~ top electrode (1) on the silicon dice, disposing ~~the a~~ piezoelectric layer (2), disposing ~~the a~~ bottom electrode (3), disposing ~~the a~~ Bragg reflector (4), disposing ~~the a~~ front side absorbing layer (7), disposing ~~the a~~ basie-substrate (5), and removing the ~~silicon dice~~holder.